

1 What is claimed is:

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3 1. A system for docking a capture spacecraft to a target
4 spacecraft having an extending ring, the system comprising,
5 jaws for grasping onto the extending ring at respective
6 positions about the ring,

7 jaw motors respectively for opening and closing the jaws
8 for grabbing the extending ring at the respective positions
9 about the ring,

10 adjusting motors for moving the jaws relative to each
11 other for placing the jaws at the respective positions, and
12 mounting plate for supporting jaws, jaw motors, and
13 adjusting motors.

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15 2. The system of claim 1 wherein,

16 each of the jaws, respective motors, and adjusting motors
17 are integrated together into an assembly.

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19 3. The system of claim 1 wherein,

20 each one of the jaws, respective jaw motors, and respective
21 adjusting motors are integrated together into an assembly
22 further comprising an elevation pad for separating in distance
23 the jaws, jaw motors, and adjusting motors from the mounting
24 plate.

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27 4. The system of claim 1 wherein,

28 the extending ring is an adapter ring.

1 5. The system of claim 1 wherein,

2 th extending ring is an adapter ring comprising:

3 a vertical extending circular ring; and

4 a lip at a distal end of the extending circular ring,
5 the jaws serving to grab the lip at the respective positions
6 that are respective angular positions circumferentially about
7 the lip.

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9 6. The system of claim 1 wherein,

10 the extending ring is an adapter ring comprising:

11 a vertical extending circular ring; and

12 a lip at a distal end of the extending circular ring,
13 the lip being a horizontal extending flange, the jaws serving
14 to grab the lip at the respective positions that are respective
15 angular positions circumferentially about the lip.

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19 7. The system of claim 1 wherein,

20 the extending ring is an adapter ring comprising:

21 a vertical extending circular ring; and

22 a lip at a distal end of the extending circular ring,
23 the lip being a horizontal extending flange, the jaws serving
24 to grab the lip at the respective positions that are respective
25 angular positions circumferentially about the lip, the target
26 spacecraft is a satellite with a circular adapter ring.

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1 8. The system of claim 1 wherein,
2 the extending ring is an adapter ring comprising:
3 a vertical extending circular ring; and
4 a lip at a distal end of the extending circular ring,
5 the lip being a horizontal extending flange, the jaws serving
6 to grab the lip at the respective positions that are respective
7 angular positions circumferentially about the lip, the target
8 spacecraft is a satellite with a rectangular adapter.

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